

Optocoupler Market projected to surpass US\$1.85 billion by 2028

The optocoupler market is expected to grow at a CAGR of 4.78% over the forecast period to reach a market size of US\$1,851.723 million in 2028.



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/EINPresswire.com/ -- According to a new study published by Knowledge Sourcing Intelligence, the [optocoupler market](#) is projected to grow at a CAGR of 4.78% between 2023 and 2028 to reach US\$1,851.723 million by 2028.

Some of the prime factors propelling the optocoupler market growth are advancements in semiconductor technology, increasing demand for noise isolation solutions in electronic devices, expanding applications in industrial automation and telecommunications, and the growing emphasis on energy-efficient and high-performance electronic components.

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The optocoupler market is anticipated to grow at a CAGR of 4.78% to reach a market valuation of US\$1,851.723 million in 2028, from US\$1,335.305 million in 2021.”

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An optocoupler, also known as an optoisolator or photocoupler, is an electronic component that provides electrical isolation between two circuits while allowing them to communicate optically. It typically consists of a light-emitting diode (LED) that emits light when an electrical signal is applied to it and a photosensitive

detector such as a phototransistor or a photodiode that converts the received light back into an electrical signal. Optocouplers are commonly used to transmit signals or data between components in a way that prevents direct electrical connection, thereby protecting sensitive circuits from voltage spikes, noise, and potential damage. They find applications in areas such as noise isolation, voltage level shifting, signal transmission, and safety circuitry in various electronic devices and systems.

The optocoupler market is witnessing multiple collaborations and technological advancements, for instance in June 2023, Vishay Intertechnology introduced an innovative optocoupler, the VOMDA1271, featuring an integrated turn-off circuit, providing exceptional electrical isolation. Designed for automotive MOSFET driving, it simplifies design, eliminates the need for an external power supply, and boasts impressive specs, including 3750 Vrms voltage isolation, a rapid 0.7 ms

turn-off time, and a quick 0.05 ms turn-on time. This pioneering product is expected to reshape the optocoupler market with its industry-first features.

Access sample report or view details:

<https://www.knowledge-sourcing.com/report/optocoupler-market>

Based on comparison, the market is segmented into [isolation transformer](#), optocoupler, magnetic coupler, and [digital isolator](#). Among the segments, the optocoupler market is witnessing significant growth. This growth is attributable to the increasing demand for compact and energy-efficient solutions across industries such as automotive, telecommunications, and industrial automation. Optocouplers excel in providing robust isolation and noise immunity, which is particularly crucial in modern high-speed communication systems and sensitive electronic equipment. Their ability to bridge the gap between different voltage levels, coupled with their reliability and effectiveness in noise reduction, positions optocouplers as a preferred choice for ensuring safe and reliable data transmission and power transfer between isolated circuits.

Based on type, the market is divided into transistor, Darlington transistor, TRIAC, and SCR. The Darlington transistor segment is experiencing substantial growth owing to its amplified current gain and heightened sensitivity, which make it particularly well-suited for applications requiring stronger signal amplification and precise control. Industries such as industrial automation and motor control demand components with robust performance, and Darlington transistor optocouplers fulfill these requirements effectively. Their ability to handle higher currents and provide superior performance in these applications has contributed significantly to their rapid expansion within the market.

Based on application, the market is analyzed as power supplies, telecom switches, white goods, instrumentation, and others. Among the segmented applications, the optocoupler market is currently experiencing positive growth, particularly in the power supplies and telecom switches sectors. This is driven by the increasing demand for enhanced safety and efficient signal transmission in these critical industries. In power supplies, optocouplers play a pivotal role in isolating control and feedback loops, ensuring stable operation and protection against voltage variations. In telecom switches, optocouplers are vital for isolating high-voltage lines from low-voltage control circuitry, thus preventing potential damage and ensuring seamless and secure communication. As industries continue to prioritize safety and reliable data transmission, optocouplers find a strong foothold in power supplies and telecom switches, driving their notable growth.

Geographically, North America, particularly the USA, accounts for a significant market share owing to several factors. The region boasts a mature and technologically advanced electronics industry, a strong presence of key market players, and a consistent focus on innovation. The USA's robust research and development infrastructure, coupled with its increasing adoption of automation, robotics, and IoT technologies, drives the demand for reliable and efficient isolation

solutions like optocouplers. Furthermore, the country's emphasis on energy-efficient solutions and stringent safety regulations across industries such as automotive, aerospace, and medical devices further accelerates the demand for optocouplers, positioning North America, as a dominant force in the global optocoupler market.

As a part of the report, the major players operating in the optocoupler market that have been covered include Renesas Electronics, TT Electronics, Broadcom, Vishay Intertechnology, Onsemi, Skyworks Solutions, Inc., Panasonic Holdings Corporation, Micropac Industries, Inc., Everlight Electronics Co., Ltd., Isocom Components, and ISOBAUD, Inc among other significant market players.

The analytics report segments the optocoupler market as follows:

- By Comparison

- o Isolation Transformer
- o Optocoupler
- o Magnetic Coupler
- o Digital Isolator

- By Type

- o Transistor
- o Darlington Transistor
- o TRIAC
- o SCR

- By Application

- o Power Supplies
- o Telecom Switches
- o White Goods
- o Instrumentation
- o Others

- By Geography

- o North America

- United States
- Canada
- Mexico

- o South America

- Brazil
- Argentina
- Others

- o Europe

- United Kingdom
- Germany
- France
- Spain
- Others

- o Middle East and Africa

- Saudi Arabia
- UAE
- Israel
- Others

- o Asia Pacific

- Japan
- China
- India
- South Korea
- Indonesia
- Thailand
- Others

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